

Axial Lead & Cartridge Fuses

5x20 mm > Time-Lag > 215 Series

215 Series, 5x20 mm, Time-Lag Fuse



Agency Approvals

Agency	Agency File Number	Ampere Range
	Cartridge: NBK080205-E10480A NBK250702-E10480E NBK100408-JP1021A	1A – 5A 6.3A – 15A 16A – 20A
	Leaded: NBK080205-E10480B NBK250702-E10480F NBK100408-JP1021B	1A – 5A 6.3A – 15A 16A – 20A
	2005010207145714	1A – 6.3A
	CQC07012021808	8A – 10A
	SU05001-2011B	1A – 2.5A
	SU05001-10001	3.15A – 6.3A
	SU05001-10002	8A
	SU05001-2012B	4A – 10A
	E10480	0.125A - 20A
	29862	0.5A – 12A
	1517218	0.125A-12A
		15A*, 16A*, 20A*
	40013521	0.2A – 8A *10A
	40016610	*12A
	KM41462	0.200A – 10A
	J50258578	16A/20A
	N/A	0.125A – 20A

* Approved for cartridge versions only

Description

5x20mm Time-Lag surge withstand ceramic body cartridge fuse designed to IEC specification

Features

- Designed to International (IEC) Standards for use globally
- High breaking capacity
- Meets the IEC 60127-2, Sheet 5 specification for Time-Lag fuses
- RoHS compliant and lead-free

Applications

Used as supplementary protection in appliance or utilization equipment to provide individual protection for components or internal circuits.

Additional Information



Datasheet



Resources



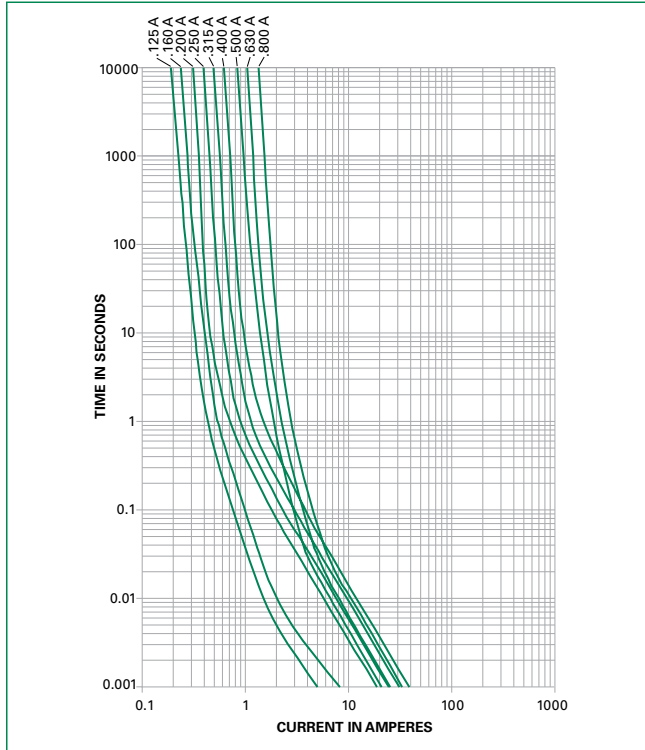
Samples

Electrical Characteristics for Series

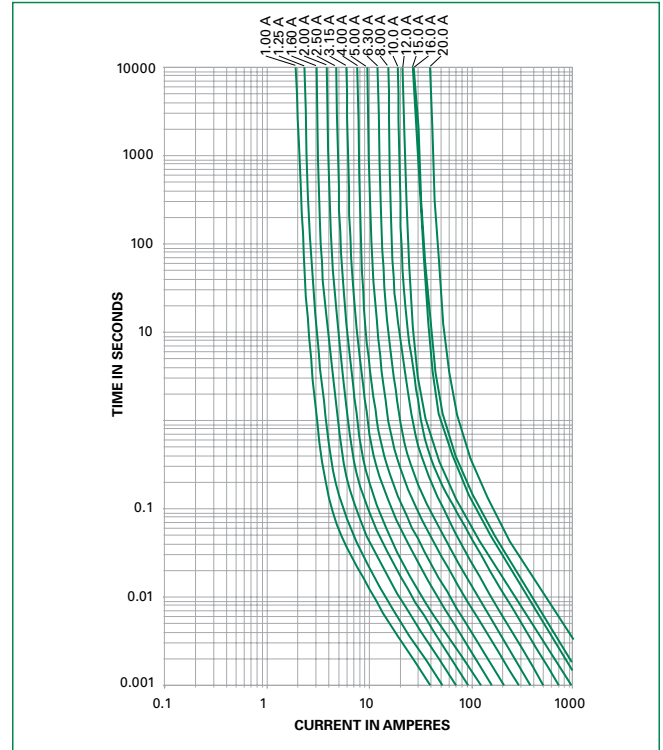
% of Ampere Rating	Ampere Rating	Opening Time
150%	0.125A – 0.800A	60 minutes, Minimum
	1A – 3.15A	60 minutes, Minimum
	4A – 6.3A	60 minutes, Minimum
	8A – 20A	30 minutes, Minimum
210%	0.125A – 0.800A	30 minutes, Maximum
	1A – 3.15A	30 minutes, Maximum
	4A – 6.3A	30 minutes, Maximum
	8A – 20A	30 minutes, Maximum
275%	0.125A – 0.800A	.25 sec. Min.; 80 secs. Max.
	1A – 3.15A	.75 sec. Min.; 80 secs. Max.
	4A – 6.3A	.75 sec. Min.; 80 secs. Max.
	8A – 20A	.75 sec. Min.; 80 secs. Max.
400%	0.125A – 0.800A	.05 sec., Min.; 5 secs. Max.
	1A – 3.15A	.095 sec., Min.; 5 secs. Max.
	4A – 6.3A	.150 sec., Min.; 5 secs. Max.
	8A – 20A	.150 sec., Min.; 5 secs. Max.
1000%	0.125A – 0.800A	.005 sec., Min.; .150 sec. Max.
	1A – 3.15A	.010 sec., Min.; .150 sec. Max.
	4A – 6.3A	.010 sec., Min.; .150 sec. Max.
	8A – 20A	.010 sec., Min.; .150 sec. Max.

Average Time Current Curves

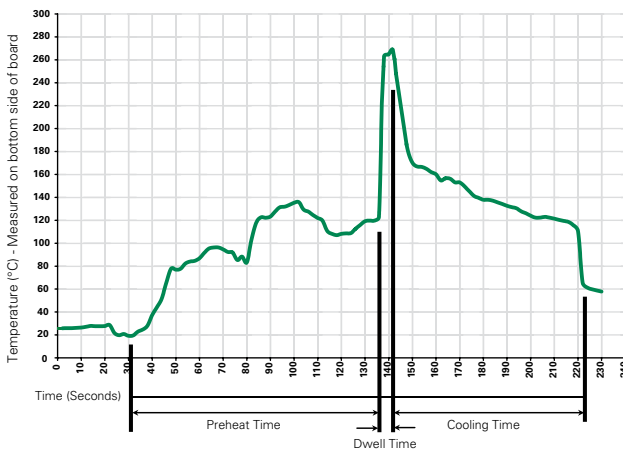
T-C Curves for 125mA to 800mA only



T-C Curves for 1A to 20A only



Soldering Parameters - Wave Soldering



Recommended Process Parameters:

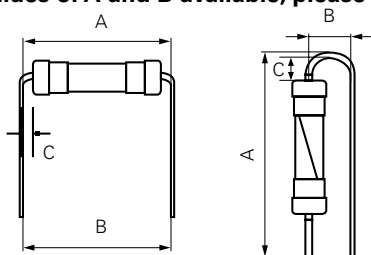
Wave Parameter	Lead-Free Recommendation
Preheat: (Depends on Flux Activation Temperature) (Typical Industry Recommendation)	
Temperature Minimum:	100° C
Temperature Maximum:	150° C
Preheat Time:	60-180 seconds
Solder Pot Temperature:	260° C Maximum
Solder Dwell Time:	2-5 seconds

Recommended Hand-Solder Parameters:

Solder Iron Temperature: 350° C +/- 5° C
 Heating Time: 5 seconds max.

Note: These devices are not recommended for IR or Convection Reflow process.

Different values of A and B available, please contact the Littelfuse sales representative in your region:



For the pigtailed fuse, please follow the recommendations below for axial lead forming and mounting into PCB:

Lead forming:

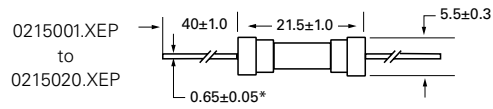
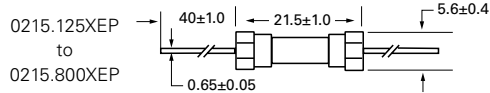
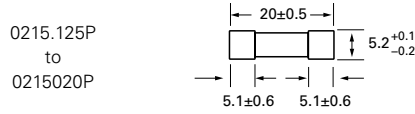
The distance C between cap flat surface and axial lead shall be greater than 1.0 mm.

PCB mounting:

The distance between PCB and fuse cap is recommended to be a minimum of 1.5 mm.

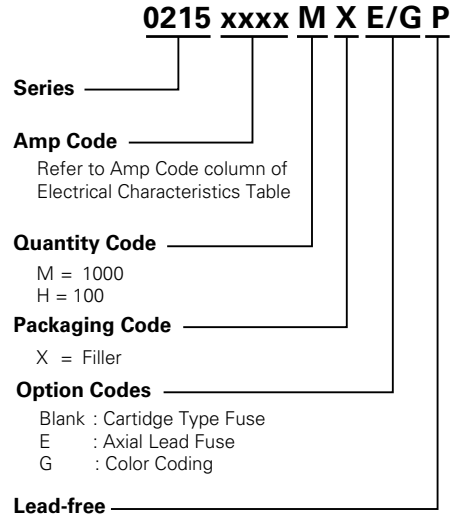
Dimensions

All dimensions in mm



Notes:
* Ratings above 6.3 A have 0.8 ± 0.05 diameter lead;
* Ratings above 12 A have 1.2 ± 0.05 diameter lead.

Part Numbering System



Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Taping Width
215 Series				
Bulk	N/A	1000	MX	N/A
Bulk	N/A	1000	MXE	N/A
Reel and Tape	N/A	1000	MRET1	T1=53mm (2.087")
Bulk and Color Coding	N/A	1000	MXG	N/A
Bulk	N/A	1000	MXB	N/A
Bulk	N/A	100	HX	N/A

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Littelfuse:

[215001](#) [215005XE](#) [215010XE](#) [215.200XP](#) [215002.XP](#) [215008XE](#) [215.200](#) [215.500](#) [215002](#) [21502.5](#) [2153.15](#)
[215005](#) [21506.3](#) [215008](#) [215010](#) [21506.3XE](#) [0215.250MXP](#) [021506.3H-](#) [021502.5MXP](#) [02151.25M-](#)
[0215010.MXE-](#) [021501.6M-](#) [0215.400H-](#) [0215004.H-](#) [0215.315MXEP](#) [0215005.MXP](#) [0215.315HXP](#) [0215.315MXP](#)
[0215.200H-](#) [0215.200MXE-](#) [0215.400MXE-](#) [0215012.M-](#) [0215.630MXEP](#) [0215001.MXE-](#) [0215001.MXP](#) [02151.25H-](#)
[0215004.MXEP](#) [0215.250HXP](#) [0215002.MXEP](#) [021501.6MXP](#) [0215.200MXP](#) [215.315XP](#) [215005.XEP](#)
[0215.400HXP](#) [021502.5MXE-](#) [0215.315MXE-](#) [0215.500H-](#) [0215001.MXEP](#) [0215002.MXP](#) [021501.6MXE-](#)
[0215.200HXP](#) [0215.500HXP](#) [0215.800HXP](#) [02153.15M-](#) [0215.400MXEP](#) [0215010.MXEP](#) [0215.200M-](#) [0215.315M-](#)
[0215001.HXP](#) [02153.15HXP](#) [021506.3HXP](#) [02151.25MXE-](#) [021506.3MXE-](#) [0215005.H-](#) [0215012.MXP](#)
[0215008.MXE-](#) [0215.500M-](#) [021502.5H-](#) [215001.XP](#) [0215.800H-](#) [021501.6H-](#) [0215.250MXEP](#) [02153.15MXEP](#)
[0215010.HXP](#) [0215001.M-](#) [0215.630MXP](#) [0215002.M-](#) [021502.5M-](#) [21502.5XP](#) [215005.XP](#) [21506.3XEP](#)
[021502.5MXBP](#) [0215004.MXBP](#) [0215.125MRET1P](#) [0215.125MXP](#) [0215.160MXP](#) [0215.315MRET1P](#)
[0215.400MRET1P](#) [0215.500MRET1P](#) [02153.15MRET3-](#) [0215020.MXEP](#) [02153.15MRET1P](#) [0215.800MRET1P](#)
[0215004.MRET1P](#) [0215002.MRET1P](#) [0215001.MRET1P](#) [0215005.MRET1P](#) [0215010.MRET1P](#) [0215010.TXP](#)
[215008.XEP](#)